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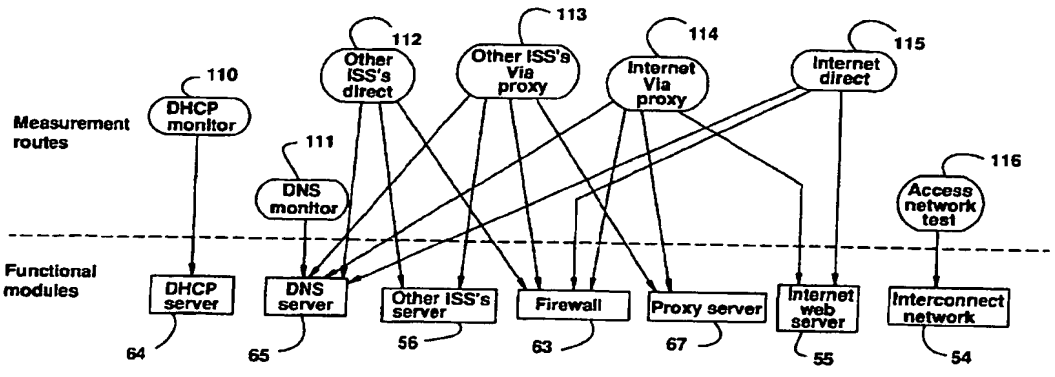
(54) Method and system for managing data service systems

(57) A scheme is described for a data service system (50) having a number of modules (51, 54-56, 61-67). Some of the modules (51, 54-56, 61-67) are interdependent. To measure the status of an individual module, the scheme first collects measurements from a number of measurement routes (110-116) that involve the module. Then the scheme analyzes the interdependencies of the measurements to determine the status of the individual module. The scheme may also determine status of the data service system (50) with a minimal number of measurement routes. This is done by determining (1) all possible measurement routes, (2) determining the dependency between the modules and the measurement routes, and (3) analyzing the dependency to select minimal number of the measurement routes. The scheme can diagnose whether a module is a problematic module or not by analyzing a number of measurements that involve the module. If one of the measurements is good, the module is identified as non-problematic.

FIG.7



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EUROPEAN SEARCH REPORT

Application Number
EP 98 30 2860

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
A	US 5 488 715 A (WAINWRIGHT PAUL F) 30 January 1996 (1996-01-30) * abstract * * column 1, line 7 - line 15 * * column 2, line 19 - column 3, line 21 * * column 7, line 13 - line 45 *	1-10	H04L29/06 H04L12/24
A	APOSTOLOPOULOS T K ET AL: "A MODEL FOR SNMP BASED PERFORMANCE MANAGEMENT SERVICES" PROCEEDINGS OF IEEE SINGAPORE INTERNATIONAL CONFERENCE ON NETWORKS, 3 July 1995 (1995-07-03), XP002041821 * abstract * * page 269, right-hand column, line 13 - line 26 * * page 270, left-hand column, line 5 - line 29 * * page 271, left-hand column, line 13 - line 55 *	1-10	

TECHNICAL FIELDS SEARCHED (Int.Cl.6)

H04L

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	10 November 2000	Adkhis, F

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5488715 A	30-01-1996	NONE	

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